

10/574059

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/EP2004/052038

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement

PCT/EP2004/052038 29 MAR 2006

1. Statement

Novelty (N)	Claims		YES
	Claims	1,2,3,4,5	NO
Inventive step (IS)	Claims		YES
	Claims	6,7,8,9,10	NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO

2. Citations and explanations:

see appended sheet

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Appended Sheet

Re Point V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

- D1: US 2002/050165 A1 (YONEZAWA FUMIYOSHI ET AL) May 2, 2002 (2002-05-02)
- D2: US 5 396 795 A (ARAKI ET AL) March 14, 1995 (1995-03-14)
- D3: US 6 516 785 B1 (NAKADA KEIICHI ET AL) Februar 11, 2003 (2003-02-11)
- D4: US 5 744 713 A (WIENAND ET AL) April 28, 1998 (1998-04-28)
- D5: US 2002/064649 A1 (LEMBKE MANFRED ET AL) May 30, 2002 (2002-05-30)

2. Novelty (Article 33(2)PCT)

The present application does not satisfy the requirements of Article 33(1) PCT, because the subject matter of Claims 1-5 is not novel within the meaning of Article 33(2) PCT. The reasons for this are as follows:

2.1 INDEPENDENT CLAIM 1

Document D1 describes (the comments in brackets refer to this document) a hot-film air mass meter for recording the air flow rate in the intake tract or the charge air tract of an internal combustion engine (paragraph [0002]

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having:

- a substrate part that accommodates a sensor chip (Abstract and illustration 1) which is allocated in a channel that has flowing through it at least a partial mass flow of a flowing medium (paragraph [0010]),
- the sensor chip extending into the channel that has flowing through it the partial mass flow of the flowing medium (paragraph [0010] and page 3, column 2, lines 1-7),
- the substrate part, into which the sensor chip is integrated downstream with respect to a flow direction and lying behind a leading edge (illustration 3), is developed either as a component that is able to be fastened separately to an electronics module or as a unit extruded onto the electronics module (illustration 1).

All the features of Claim 1 have already been described in document D1, and the subject matter of Claim 1 is therefore **not novel** (Article 33(2) PCT).

It is mentioned for the sake of completeness that all the features of Claim 1 are also described in document D2 (see D2: illustration 3 and from column 2, line 37 to column 3, line 13). Therefore, the subject matter of Claim 1 is also not novel in consideration of document D2.

2.2 DEPENDENT CLAIMS 2-5

Claims 2-5, 10 do not include any features that, in combination with the features of any claim to which they relate, satisfy the requirements of the PCT with regard to novelty and inventive activity, since their additional features have been described in the related art (see Search Report).

3. Inventive Step (Article 33(3) PCT),

The present application does not satisfy the requirements of Article 33(1) PCT, because the subject matter of Claims 6 through 10 is not based on an inventive step in the sense of Article 33(3) PCT.

3.1 INDEPENDENT CLAIM 9

Claim 1 is not clear, and therefore does not meet the requirements of Article 6 PCT, since the subject matter of the claims is not clearly defined. Claim 9 designates a "method for producing a printed circuit board", but the method steps specified refer to elements of the electronics module, and not to the printed circuit board (see, for instance, step c). One may infer from the specification (see page 8, lines 2-5 and illustration 5.1) that the substrate part is fastened to the electronics module (which is supposed to accommodate the printed circuit board). By contrast to this, it is specified in step c) that the substrate part is mounted on the printed circuit board.

Regardless of the lacking clarity mentioned above, the subject matter of Claim 9 is not, by the way, based on inventive activity within the meaning of Article 33(3) PCT. The steps of the method of Claim 9 are at least implicitly described in documents D1-D4. The method of Claim 9 seems to differ from these known methods only in that the electronic connections are executed while using a printed circuit board. However, this design approach seems only to be an obvious alternative, which had already been used in a similar method (as [may be seen] in document D5, column 4, lines 39-60 and illustration 8b). Therefore, one skilled in the art would combine the features described in documents D1-D5, and would arrive at a method according to Claim 9, without adding anything inventive. The design approach proposed in Claim 9 is accordingly not to be regarded as inventive (Article 33(3) PCT).

3.2 DEPENDENT CLAIMS 6-8 and 10

Dependent Claims 6 through 8 and 10 do not include any features that, in combination with the features of any claim to which they relate, fulfill the requirements of the PCT with regard to inventive activity.